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AUTHOR Crehan, Kevin
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ABSTRACT

Some potential relative advantages of performance assessment strategies over paper-and-pencil tests using short-answer and multiple-choice item formats are discussed. The major advantage of the multiple-choice test is its ability to sample a large number of learning outcomes efficiently. However, performance assessments are increasingly being used to observe concept acquisition and skill development in reading, writing, and mathematics. Performance assessments are superior to paper-and-pencil tests in their influence on learner motivation and preparation because they can be natural and normal parts of the instructional setting. Multiple-choice tests are easier to score, but performance assessments may be more content valid, inasmuch as the performance exercise is the natural goal of instruction. There is potential for the use of performance assessment to result in: (1) better integration of assessment and instruction; (2) more focus on higher level thinking skills; (3) higher motivation for engagement in instructional activities and preparatory study; and (4) enhanced instructional and content validity. The potential benefits of performance assessment may well warrant its relatively high cost. Four references are included. (SLD)

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PERFORMANCE ASSESSMENT: COMPARATIVE ADVANTAGES[1]

ED338710

Kevin Crehan

University of Nevada, Las Vegas[2]

For a variety of reasons more emphasis has recently been placed on the use of performance assessment in educational evaluation. Writers use labels like "authentic" or "naturalistic" assessment but there seems to be no difference in what is described as procedures to be used in "authentic" assessment and what has traditionally been labeled performance assessment. Some of the stimulus toward greater use of performance assessment seems to be a reaction to abuses of standardized testing, e.g., teaching to the test, teaching the test, and changing student answers. Other impetus toward expanded use of performance assessment comes from curriculum specialists who wish to better integrate instructional and assessment activities.

This presentation will discuss some potential relative advantages of performance assessment strategies over paper and pencil test assessments using short-answer and multiple-choice item formats on important instructional criteria related to:

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[2] Currently visiting Arizona State University West

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-the type of learning outcomes measured,

-influence on learner motivation and preparation,

-ease of preparation and scoring/rating, and

-instructional and content validity.

Type of Learning Outcomes Measured

Multiple-Choice. It is possible to construct multiple-choice items which measure the outcome of higher level thinking. This is especially true if the interpretive exercise or testlet format is used. An interpretive exercise consists of a small number of multiple choice items designed to measure interpretation of a novel stimulus presentation, e.g., short reading passage, map, steps in laboratory experiment, cartoon. However, in practice, multiple-choice tests tend to measure predominately lower level learning outcomes at a micro level. The major advantage of the multiple-choice test is its ability to sample a large number of outcomes efficiently.

Performance Assessment. Performance assessment has traditionally been recommended for use primarily in observing learning outcomes for which the use of paper and pencil methods was inappropriate, e.g., oral presentation, written expression, psychomotor

assessment. However, performance assessments are increasingly being employed to observe concept acquisition and skill development in reading (Dutcher, 1990), writing (Chapman, 1990), and mathematics (Pandey, 1990).

Influence on Learner Motivation and Preparation

Multiple-Choice. Students are usually rewarded for focusing on memorization of factual information and learning to make fine discriminations among stimuli with similar characteristics. Well constructed tests encourage development of higher levels of comprehension, application, and interpretation. However, preparation is more likely to be segmented than integrated. That is, the focus of preparatory study is more likely to be on single facts and concepts than on a synthetic construction of inter-concept relatedness.

The absence of a detailed study guide, content outline, or listing of instructional objectives can result in ambiguity as to an appropriate focus of study. This uncertainty can cause levels of anxiety which interfere with efficient study and learning.

Since the actual testing situation is somewhat dissimilar to the normal instruction setting and activity there is a dubious effect on motivation.

Performance Assessment. An appropriately developed performance assessment have four important distinguishing characteristics (Stiggins, Backland and Bridgeford, 1985):

- Pupils are asked to demonstrate a process they have been taught.
- The process to be demonstrated is specified in advance.
- The process to be demonstrated is directly observable.
- Performance is rated according to an identified standard of adequacy.

Let's assume we have a properly prepared instructional program which uses performance assessment to evaluate student learning and instructional effectiveness. The learner's practice in this instance is more likely to be devoted to behaviors similar to the anticipated performance situation. Knowledge of what is expected is based on in-class instructional activities and homework assignments. Since the performance assessment is a normal and natural part of the instructional setting and guidelines are pre-established, study should be directed and efficient. Motivation to engage in instructional activities and practice outside of class in preparation for the assessment should be enhanced given the authentic nature of the process.

Ease of Preparation and Scoring/Rating

Multiple-Choice. Quality multiple-choice items are difficult and time consuming to prepare. A large number of items is necessary tests and items must be kept secure so as to maintain some efficiency in the assessment program. Students are not typically given their test items to review following test administration and scoring in order to maintain security. This makes it difficult for students to relate to feedback and the assessment activity is further removed from the instructional process and, perhaps, perceived as artificial.

Multiple choice tests are, by their nature and design, very easy to score objectively.

Performance Assessment. A quality performance assessment includes a carefully described exercise, clearly detailed expectations, and well prepared rating criteria and format. Given the parallel work and skill necessary to write a multiple choice test, a performance assessment may have an advantage in level of effort. Additionally, since there is a degree of transparancy to a performance assessment, only the specifics of the exercise need renewal following use, complete replacement is not necessary and future efforts can be devoted to revision and refinement of the exercise.

Ratings and written descriptions involve more time and attention in order to accurately and objectively record the fullness of observables during a performance exercise.

Instructional and Content Validity

Multiple-Choice. Content validity depends of how well content specifications have been developed and followed in item writing or selection. Well developed learning outcome specifications lead to well developed items and tests. However, not all intended learning outcomes can be observed using multiple-choice tests. If content specifications are limited to those measurable by multiple-choice items, then the instructional validity of the specifications is suspect.

Performance Assessment. The performance assessment exercise is, in effect, a premeditated eye witness account. The premeditation is engendered in the preceding instruction and preparation activities, assessment checklists, rating scales, and/or plan to record in writing certain aspects of the exercise. Since the performance exercise is the natural goal of instruction and its instructional and content validity should be unassailable.

Summary

It is argued that performance assessments have some important advantages over objective tests in evaluation of student learning. There is potential for the use of quality performance assessments to result in:

-assessment being better integrated with instruction,

-more focus on higher level thinking skills,

-higher motivation for engagement in instructional activities and preparatory study, and

-enhanced instructional and content validity.

Given the potential benefits of performance assessment, its use in the evaluation of important learning outcomes may warrant its relatively high costs when more efficient assessment techniques are inappropriate.

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